

Appln No.: 10/661,444
Amendment Dated: April 5, 2006
Reply to Office Action of January 10, 2006

REMARKS/ARGUMENTS

This paper is filed in response to the Office Action mailed January 10, 2006 for the above-captioned application. Reconsideration and further examination are respectfully requested.

The Examiner rejected all claims of the present application under 35 USC § 103(a) as obvious over Adams ('812) in view of secondary references. Applicant currently amends claims 1, 2, 10, and 11. Support for these amendments can be found throughout the application as detailed below.

(1) Adams is non-analogous art:

Adams is non-analogous art and should not be used as a reference under 103 against the present claims. Applicant reminds the Examiner that "[i]n order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Adams' container is not a container for liquids having a dissolved gas (i.e. carbon dioxide) content. Adams' container is strictly for the storage of **gases**, or cryogenic gases.

Adams' container is not made from a "reinforced polyester" as that term is used in the present application (i.e. a polyester container wherein disposed within the polyester is a reinforcing agent such as glass fibers). Adams' fiber layer is a separate layer **surrounding** an inner polymer layer.

Adams is non-analogous art with respect to both (1) the present invention and (2) the secondary references with which the Examiner seeks to combine it. Further, because of the above, *inter alia*, one skilled in the field of carbonated beverage containers would not turn to Adams' gas container to provide a container that improves the shelf life of a beverage. Applicant submits that because of the non-analogous nature of Adams that it is simply inappropriate to use it as a 103 reference, either alone or in combination with any other reference cited by the Examiner.

(2) The present invention is directed to a non-biaxially oriented reinforced polyester container:

The combination of Adams and any of the secondary references does not arrive at the presently claimed invention. As detailed in Applicant's previous response, the containers of the

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present invention comprise non-biaxially oriented reinforced polyesters. The containers cited in the references are biaxially oriented containers, formed for example by stretch-blow molding techniques.

The Examiner rejected this argument in the present office action saying that, "the features upon which applicant relies (i.e., not biaxially oriented) are not recited in the rejected claim(s)." See pages 2 to 3 of the office action. In response to the Examiner's statement, Applicant has amended the independent claims to include the limitation that the polyester is not biaxially oriented. See currently amended claims 1, 10, and 11 above. Support for this amendment can be found in ¶¶ 029 - 033 of the present application. As would be apparent to a person skilled in the art from the methods described in the referenced paragraphs, the containers of the present invention are containers made from non-biaxially oriented polyesters.

Aside from the fact (1) that Adams is non-analogous art and (2) that the references cited by the Examiner fail to provide or suggest the non-biaxially oriented containers of the present invention, other differences between the references and the present invention exist. As described above, Adams container is not made from a "reinforced polyester" as that term is used in the present claims. Applicants have amended the independent claims as well as dependent claim 2 to clarify that the polyester is reinforced by reinforcing agents disposed within the polyester. Support for this amendment can be found throughout the present application and specifically at ¶ 32. Adams fiber layer is a separate layer surrounding an inner polymer layer. The Examiner's proposed combination of Adams with Mori fails to provide the reinforced polyester of the present claims.

Mori teaches that a surfactant applied to surface of a biaxially oriented beverage container is able to reduce the transfer of carbon dioxide gas from a liquid phase to a gas phase when the bottle is opened. See Mori, column 2 line 52 to column 3 line 5. It does not mention nor does it provide disclosure of any values or examples that demonstrated how to reduce the transfer of carbon dioxide gas from a liquid phase to the gas phase through the non-oriented reinforced polyester container wall. Mori only cites US 3,733,309 which discloses that a bottle may be made from biaxially oriented polyethylene terephthalate. Applicants note that the bottles of the '309 patent (and also of Mori) have creep properties (i.e. properties related to gas permeability and thus its shelf life with respect to the loss of carbon dioxide content) which are substantially worse than the containers of the present invention. In particular, the bottles of the '309 patent show creep of less than 5% after 90 days. See the '309, column 16, line 71 - column 18, line 1). In contrast, the containers of the present invention have creep less than 3% after half a year (i.e. less creep in twice the time). See ¶ 35 of the present application.

The Examiner cites Duse for teaching of a reinforced biaxially oriented polyester bottle with glass fibers for the purpose of resisting fracturing during stretch-blow molding. See page 6

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of the office action. The Examiner then makes the erroneous statement that Duse, “teaches a reinforced polyester bottle wherein said glass fibers are present in an amount of at least 20 wt% (1-60 wt%, col. 2, lines 45-46) . . .” See page 6 of the office action. Even if Duse taught of a non-biaxially oriented container, which it does not, the Examiner’s citation of a reference (i.e. US 4,123,415) from the background section is not proper to arrive at the fiber loadings of the present invention. The Examiner cannot pick and choose among prior art references to create a mosaic resembling the present invention, absent providing a teaching that suggests the combination. Throughout the specification, Duse only teaches of the drawback of adding fiber reinforcing agents at any significant level to materials that are to be stretched and blown to produce biaxially oriented products. See column 1, line 65 to column 3, line 20. The invention disclosed in Duse is the discovery that fibers with specific properties can be introduced into bottles, like that of Mori, that are biaxially oriented and achieve increases in strength when incorporated in amounts of between 0.3 and 5 wt %. See column 3 lines 23 - 34. This is not the present invention.

Duse teaches of the problems attributed to and the general unsuitability of using high fiber loading levels in “biaxially oriented polyester containers”. These problems are not observed in the “non-biaxially oriented reinforced polyester containers” of the present invention. In fact, a surprising benefit of using high fiber loading in the non-biaxially oriented materials of the present invention has been found. As illustrated in the previously filed Rule 132 declaration, at higher levels of fiber loading than disclosed in the actual examples of Duse (i.e. at 15 wt. % and 50 wt. % fiber loading), Applicants have found that the fibers themselves actually contribute to the reduction in gas permeability as well as to the strength of the container, and thus achieve materials that have superior performance compared to the materials of the prior art.

Applicant further notes the Examiner’s incorrect statement made on page 7 of the office action. The Examiner incorrectly states that, “volume % is taken to be approximately equal wt %”, when rejecting claim 7. Wt. % is in fact different than vol. %. The density of glass is about 2.6 g/cm³. This means that a glass fiber loading of 50 wt. % corresponds to a glass fiber loading of about 19 vol. %.

The Examiner also rejected claims 10 - 19 as obvious over (1) Adams in view of (2) Mori, (3) Duse, and (4) Zimmerman. Since independent claims 10 and 11 (from which claims 12 - 19 depend) have been amended to clearly recite that the polyester is non-biaxially oriented, and for the reasons set forth above regarding the deficiencies of references (1) - (3), *inter alia*, Applicant submits that the rejections to these claims is likewise overcome.

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For these reasons, Applicant submits that all of the claims of this application, as amended, are in form for allowance. Favorable reconsideration is respectfully requested.

Respectfully submitted,



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